

**SYSTEM AND METHOD FOR DISTRIBUTED MONITORING OF
SURROUNDINGS USING TELEMETRY OF DATA FROM REMOTE SENSORS****ABSTRACT**

[00100] A system and method for gathering and analyzing data captured from one or more remote sensing units positioned in the field. Remote sensing units preferably utilize optical sensors. Power to sensing unit components is preferably selectively controlled to reduce power consumption. Remote sensing units according to the invention can be used for a variety of purposes, including water quality or electrical power monitoring, and data from such sensing units is preferably transmitted to a secure host terminal via a communications link. The host terminal preferably formats, analyzes, and stores the data for customer review and retrieval. If alarm conditions exist that require immediate customer notification, such notifications can be sent to a customer via one or more telecommunications means. Through the use of the present invention, businesses can shift from a reactive to a proactive mode of monitoring and operation.